

EXHIBIT B: VERSION WITH MARKINGS TO SHOW CHANGES MADE**(U.S. APPLICATION NO. 08/932,985; ATTORNEY DOCKET NO. 100405-06220)**

47. (Twice Amended) An apparatus [as recited in claim 5, wherein said cell further comprises] for use in carrying out a binding assay comprising:

- (a) a cell comprising one or more electrodes having binding reagents immobilized thereon so as to form one or more binding domains; and
- (b) a sonication device, structurally coupled to said cell, for sonicating the contents of said cell.

48. (Amended) An apparatus [as recited in claim 46, wherein said binding reagents are patterned on said one or more solid phase supports] for use in carrying out a binding assay, comprising:

- (a) a cell comprising one or more solid phase supports, said supports having binding reagents immobilized and patterned thereon into a plurality of distinct binding domains [and] wherein at least one of said binding domains comprises binding reagents differing in specificity from at least one other binding domain; and
- a sonication device, structurally coupled to said cell, for sonicating the contents of said cell.

49. (Twice Amended) An apparatus as recited in claim 47, wherein said binding reagents are patterned on said one or more electrodes [into a plurality of distinct] to form said one or more binding domains and at least one of said binding domains comprises binding reagents differing in specificity from at least one other binding domain.

50. (Twice Amended) An apparatus [as recited in claim 46,] for use in

carrying out a binding assay, comprising:

- (a) a cell comprising one or more solid phase supports, said supports having one or more binding reagents immobilized thereon forming one or more binding domains; and
- (b) a sonication device, structurally coupled to said cell, for sonicating contents of said cell,

wherein said one or more solid phase supports is structurally coupled, through a surface of said cell, to said sonication device for sonicating the contents of said cell.

52. (Twice Amended) An apparatus as recited in [claim5] claims 47, 48 or 50, wherein said sonication device is a piezoelectric device.

53. (Twice Amended) An apparatus [as recited in claim 5,] for use in carrying out a binding assay, comprising:

- (a) a cell;
- (b) a sonication device, structurally coupled to said cell, for sonicating the contents of said cell; and
- (c) one or more solid phase supports, said supports having one or more binding domains formed thereon,

wherein said sonication device is an electromagnetic actuator.

57. (Twice Amended) An apparatus as recited in claim [55] 50, wherein said binding reagents are patterned on said solid phase [support into a plurality of distinct] supports to form said one or more binding domains and at least one of said binding domains comprises binding reagents differing in specificity from at least one other binding domain.

58. (Amended) An apparatus as recited in claim [56] 47, wherein said

binding reagents are patterned on said one or more [electrode into a plurality of distinct] electrodes to form said one or more binding domains and at least one of said binding domains comprises binding reagents differing in specificity from at least one other binding domain.

72. (Amended) An apparatus [as recited in claim 69,] for use in carrying out a binding assay comprising a cell, said cell comprising:

(a) one or more solid phase supports having one or more binding domains formed thereon and wherein said one or more solid phase supports are working electrodes;

(b) means, structurally coupled to said one or more solid phase supports or to said cell, for sonicating contents of said cell; and

(c) [said cell further comprises] one or more counter electrodes, [and] wherein said one or more working electrodes and said one or more counter electrodes cooperate to conduct electrochemiluminescence assays.

74. (Amended) An apparatus [as recited in claim 69] for use in carrying out a binding assay comprising a cell, said cell comprising:

(a) one or more solid phase supports having one or more binding domains formed thereon; and

(b) means, structurally coupled to said one or more solid phase supports or to said cell, for sonicating contents of said cell,
wherein said one or more solid-phase supports comprise a carbon-containing polymer composite.

75. (Amended) An apparatus [as recited in claim 69,] for use in carrying out a binding assay comprising a cell, said cell comprising:

(a) one or more solid phase supports having one or more binding



domains formed thereon; and

(b) means, structurally coupled to said one or more solid phase

supports or to said cell, for sonicating contents of said cell,

wherein said one or more solid-phase supports comprise fibril-polymer composites.

76. (Amended) An apparatus as recited in [claim] claims [5] 47, 48 or 50, [wherein] said cell [includes] further including thin capillaries, [and] wherein operation of said sonication device [is adapted to increase] increases the rate of fluid flow through said thin capillaries.

78. (Amended) An apparatus as recited in claim [69] 72, [wherein] said cell further including [includes] thin capillaries, [and said means is adapted to increase] wherein operation of said sonication means increases the rate of fluid flow through said thin capillaries.

80. (Amended) An apparatus [as recited in claim 5,] for use in carrying out a binding assay, comprising:

(a) a cell;

(b) a sonication device, structurally coupled to said cell, for sonicating contents of said cell; and

(c) one or more solid phase supports, said supports having one or more binding domains formed thereon,

wherein said cell comprises a plurality of wells.

81. (Amended) An apparatus [as recited in claim 5] for use in carrying out a binding assay, comprising:

(a) a cell;

D

(b) a sonication device, structurally coupled to said cell, for sonicating contents of said cell; and

(c) one or more solid phase supports, said supports having one or more binding domains formed thereon,

wherein said cell comprises a well plate.

82. (Amended) An apparatus [as recited in claim 5] for use in carrying out a binding assay, comprising:

(a) a cell;

(b) a sonication device, structurally coupled to said cell, for sonicating contents of said cell; and

(c) one or more solid phase supports, said supports having one or more binding domains formed thereon,

wherein said cell comprises a 96 well plate or a 384 well plate.

83. (Amended) The apparatus according to [claim 5] claims 47, 48 or 50, further comprising a light detector for detecting luminescence from said cell.

85. (Amended) An apparatus as recited in claims [claim 5] 47, 48 or 50, wherein said [one or more binding domains comprise] binding reagents are selected from the group consisting of antibodies, antibody fragments, enzymes, nucleic acids and receptors.

91. (Amended) An apparatus as recited in claims [claim 5] 47, 48 or 50, wherein said apparatus is adapted to detect specific binding reactions within said cell.

93. (Amended) An apparatus as recited in claim [69] 72, wherein said apparatus is adapted to detect specific binding reactions within said cell.